

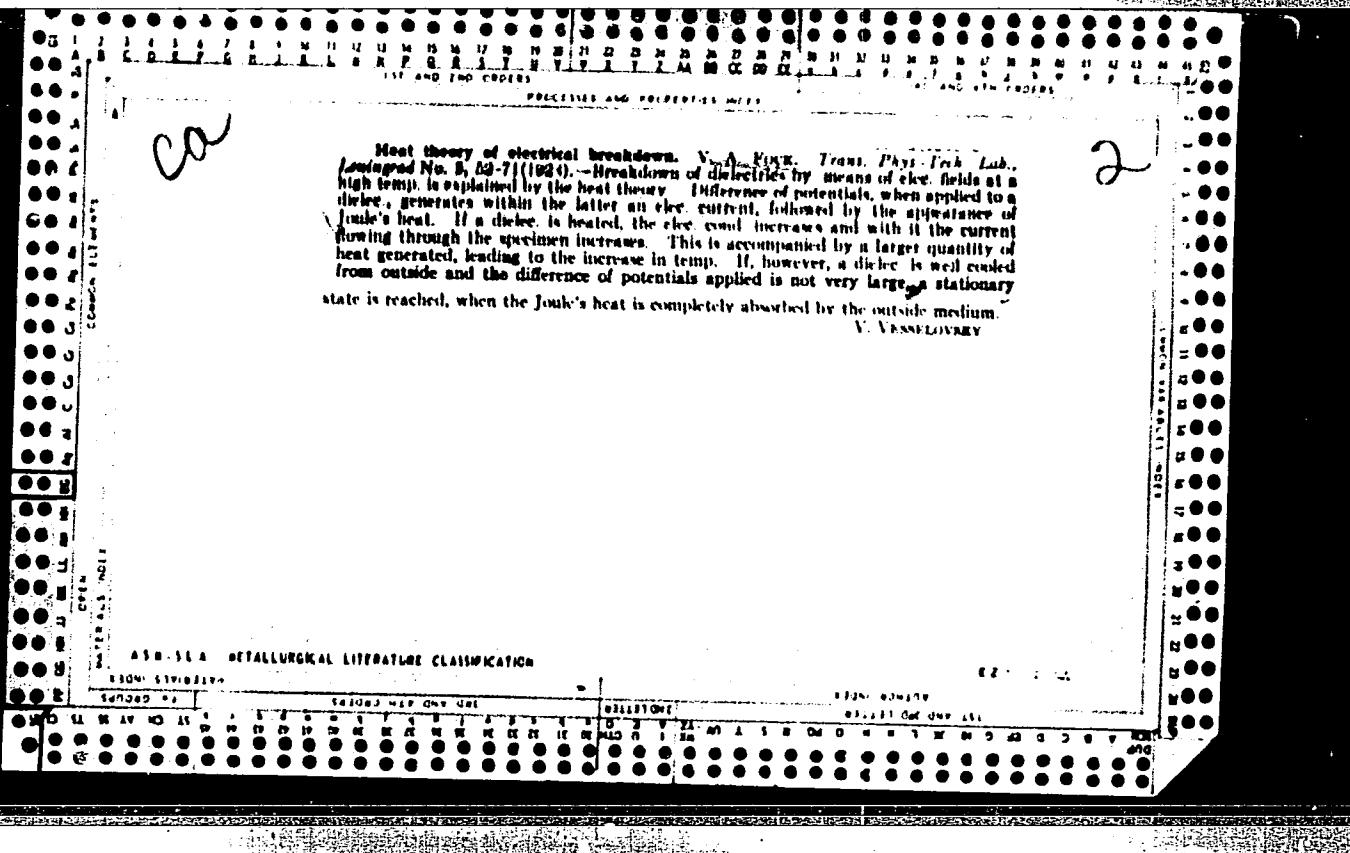
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1928-1948

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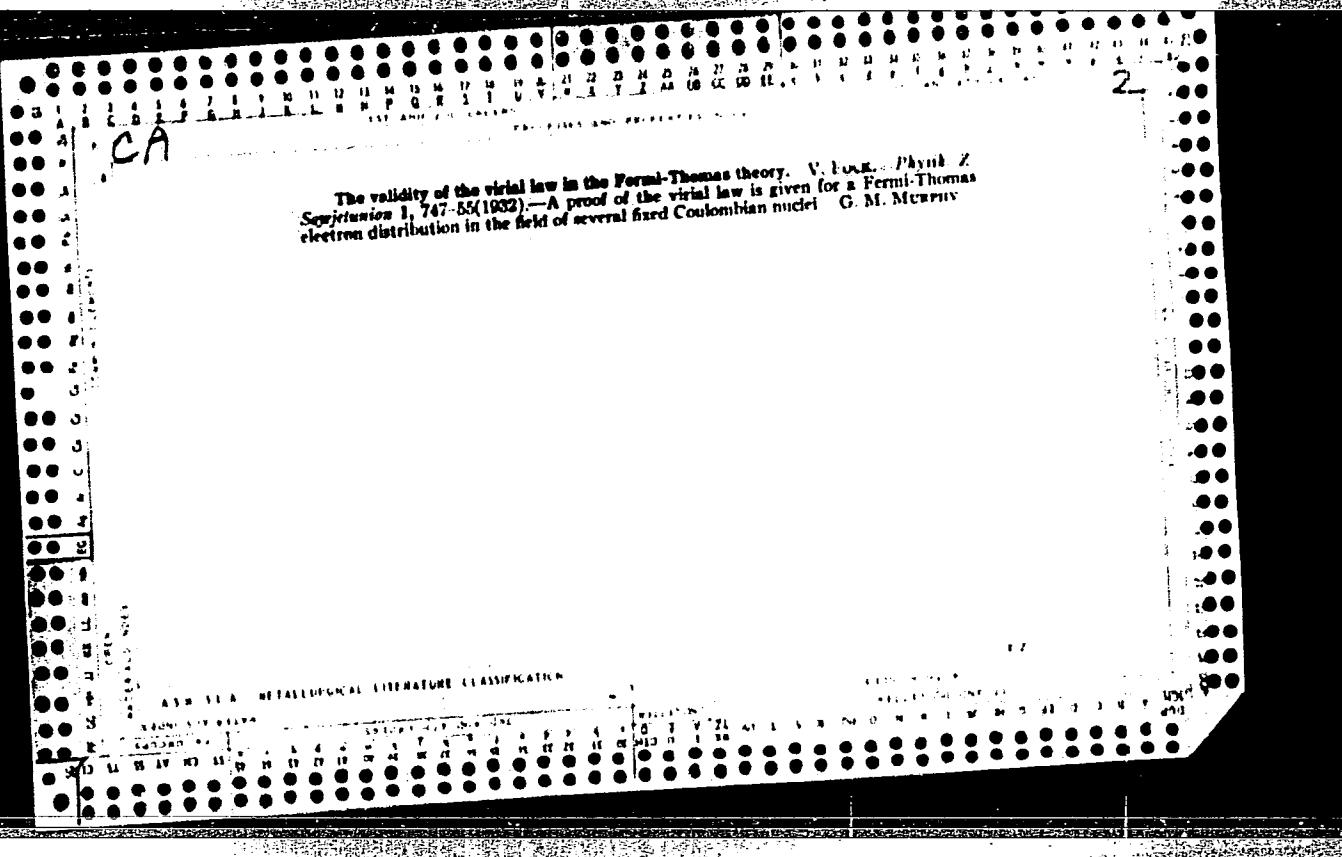
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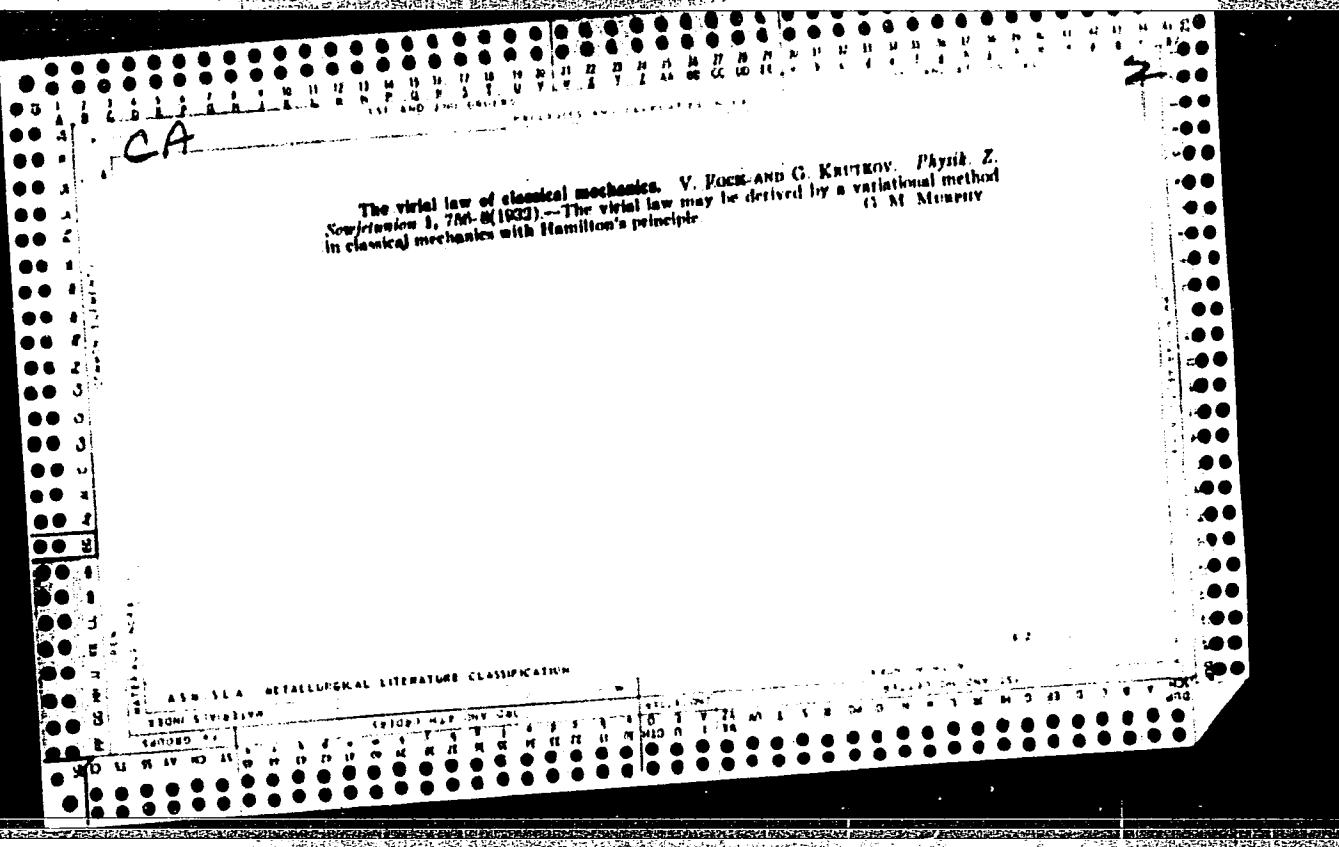


FOK, V. A.

O konformnom izobrazhenii chetyrekhugol'-nika s nulevymi ugлami na poluploskosti. L.,
zh. fiz.-matem. o-va, 1 (1927), 147-168.

SO: Mathematics in the USSR, 1917-1947
edited by Jurosh, A. G.,
Markushevich, A. L.
Rashevskiy, P. K.
Moscow-Leningrad, 1948





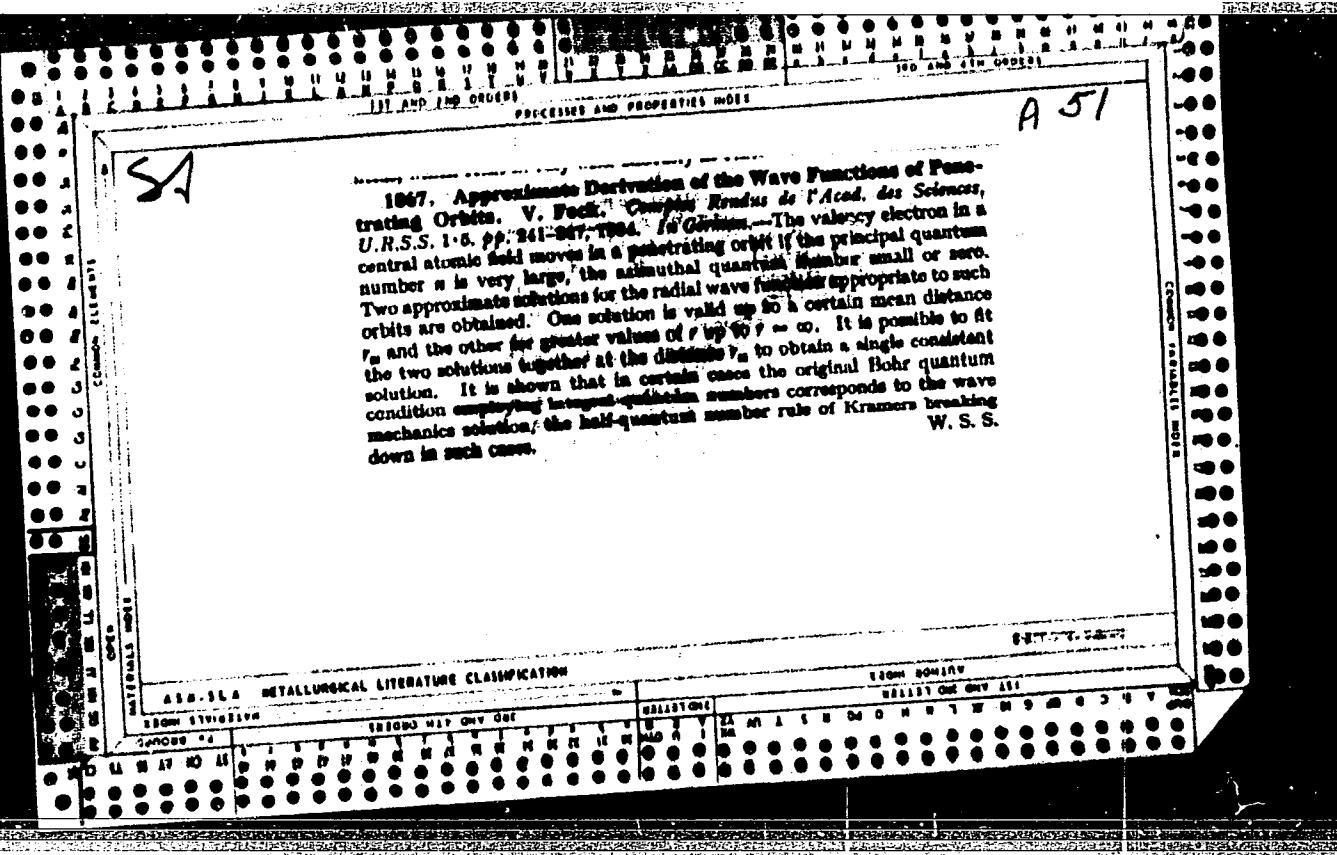
"APPROVED FOR RELEASE: 08/23/2000

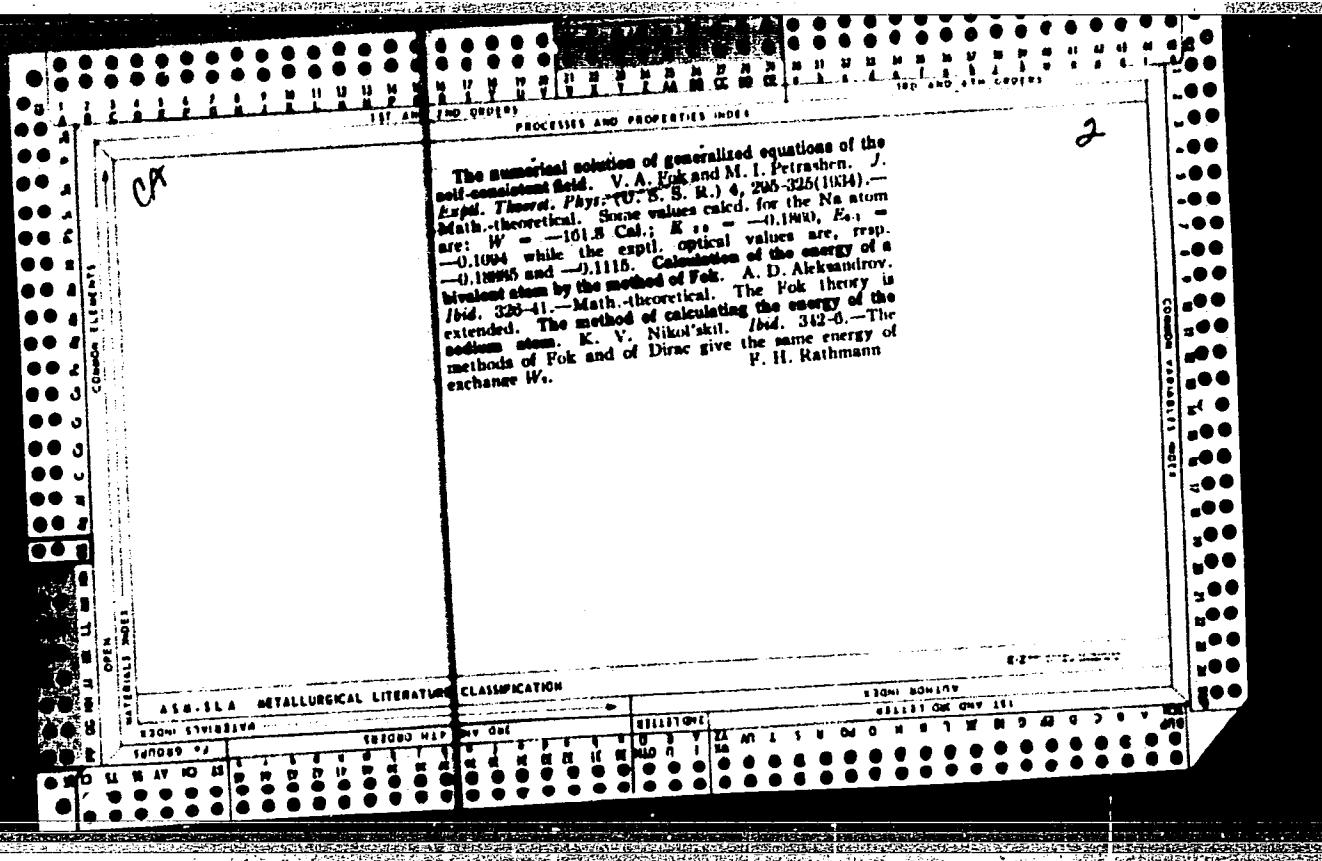
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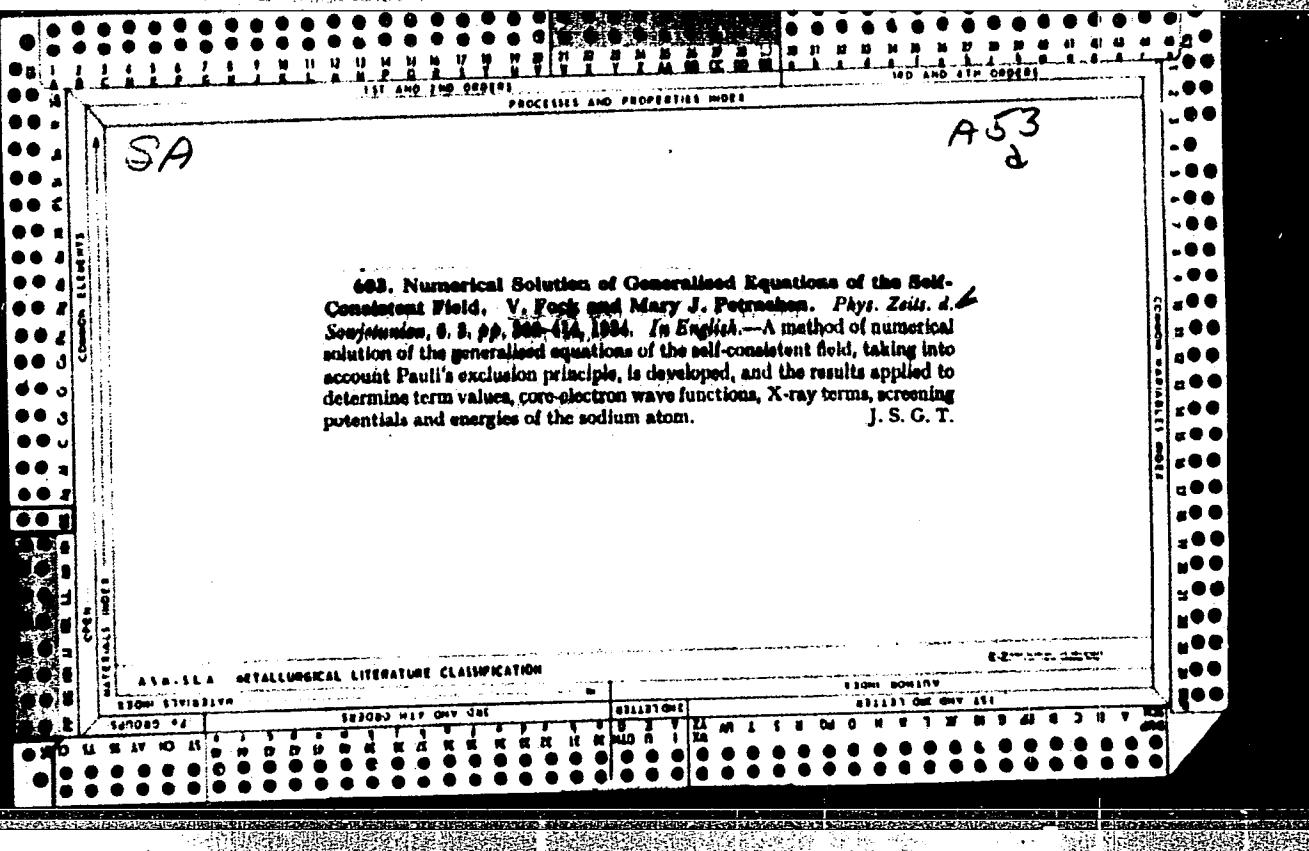
Theory of posets. V. A. Puk. (Compil. transl. edd.)
Int. U. S. S. R. (N. S.) 1963, 3(6)-7 (in German 207-71).
Howard Andrew Smith
Math.

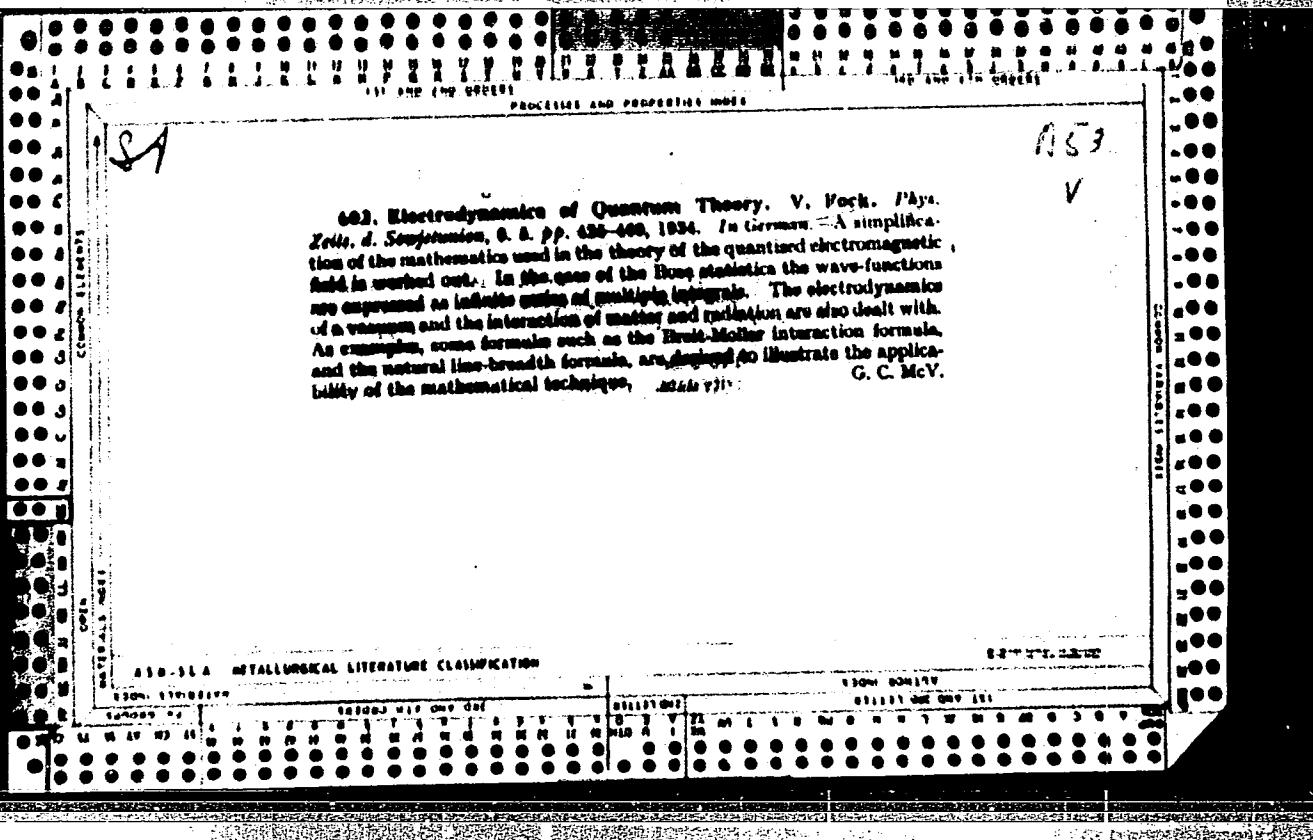
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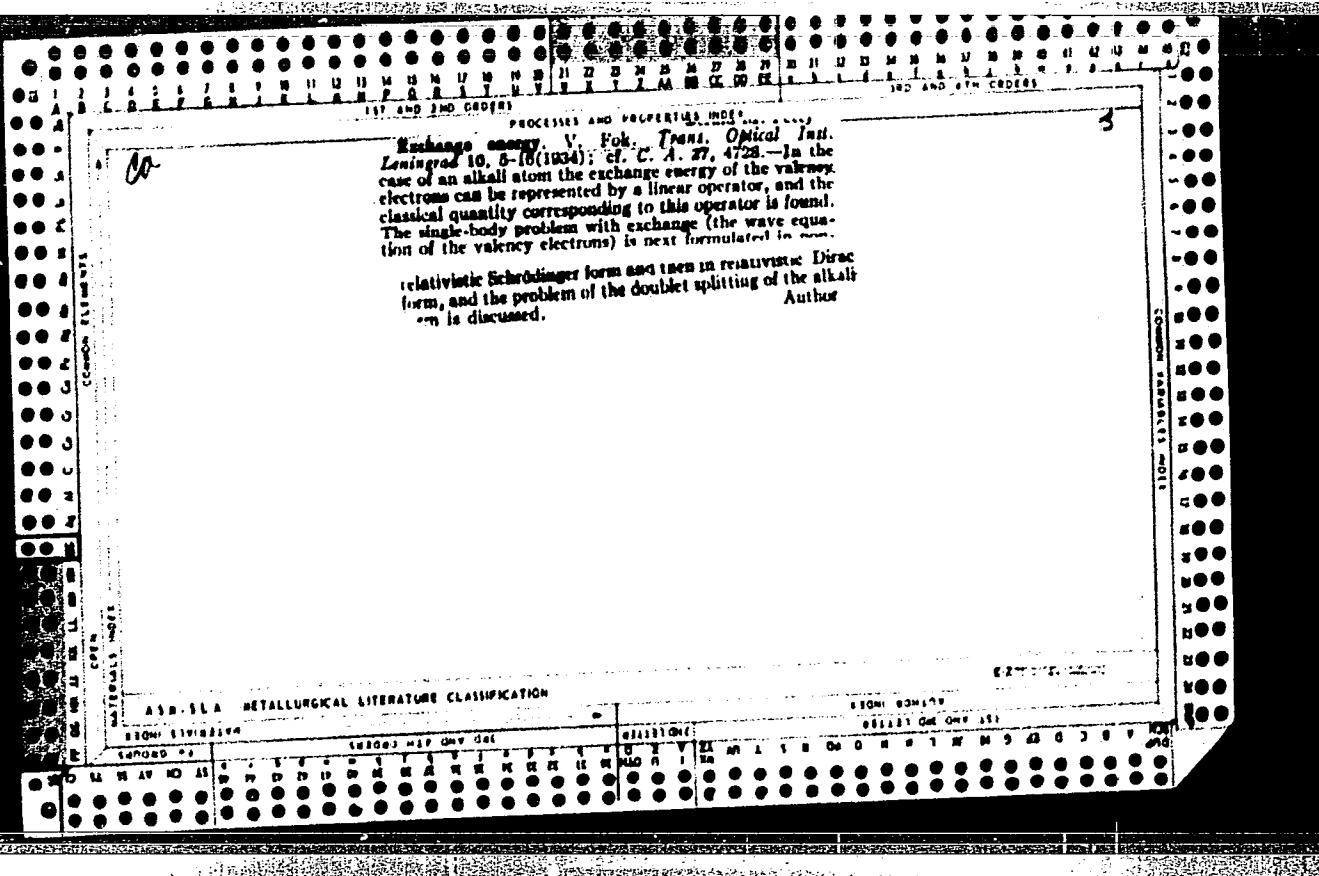
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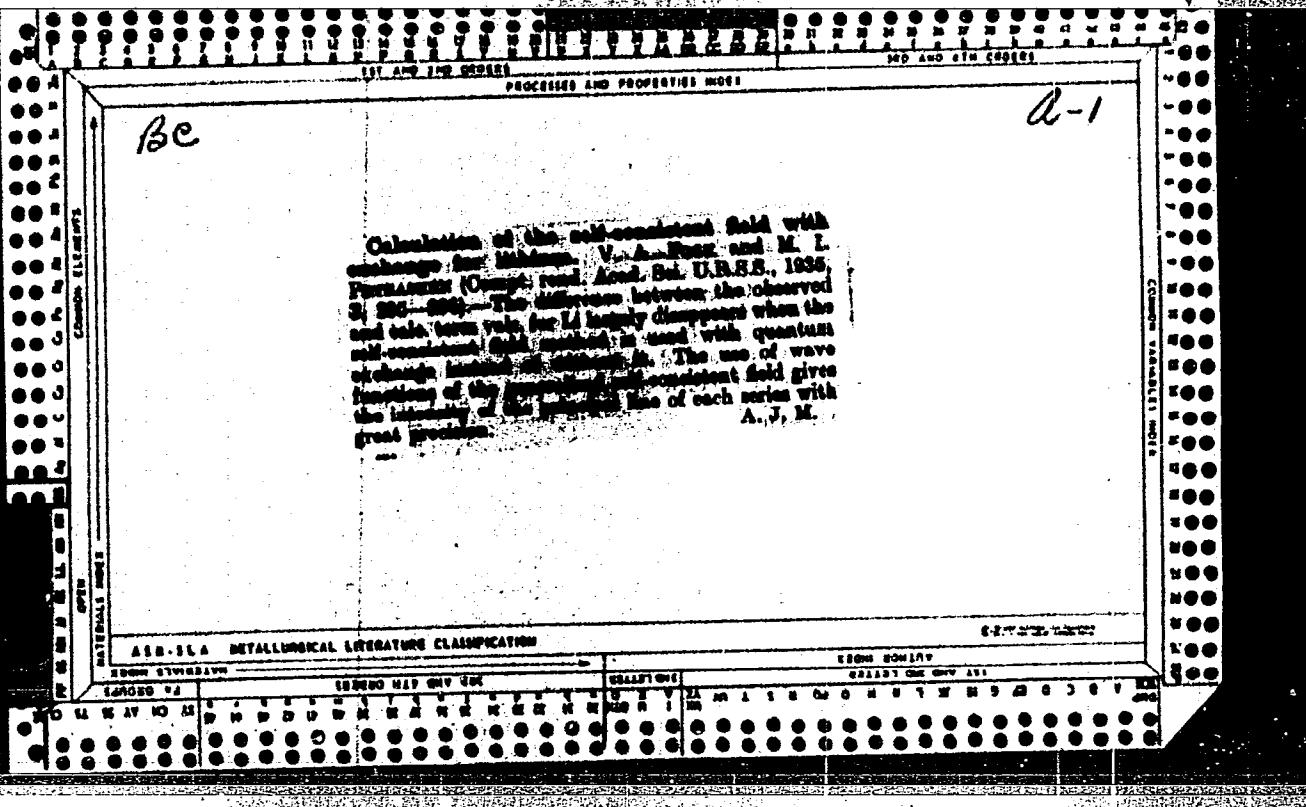


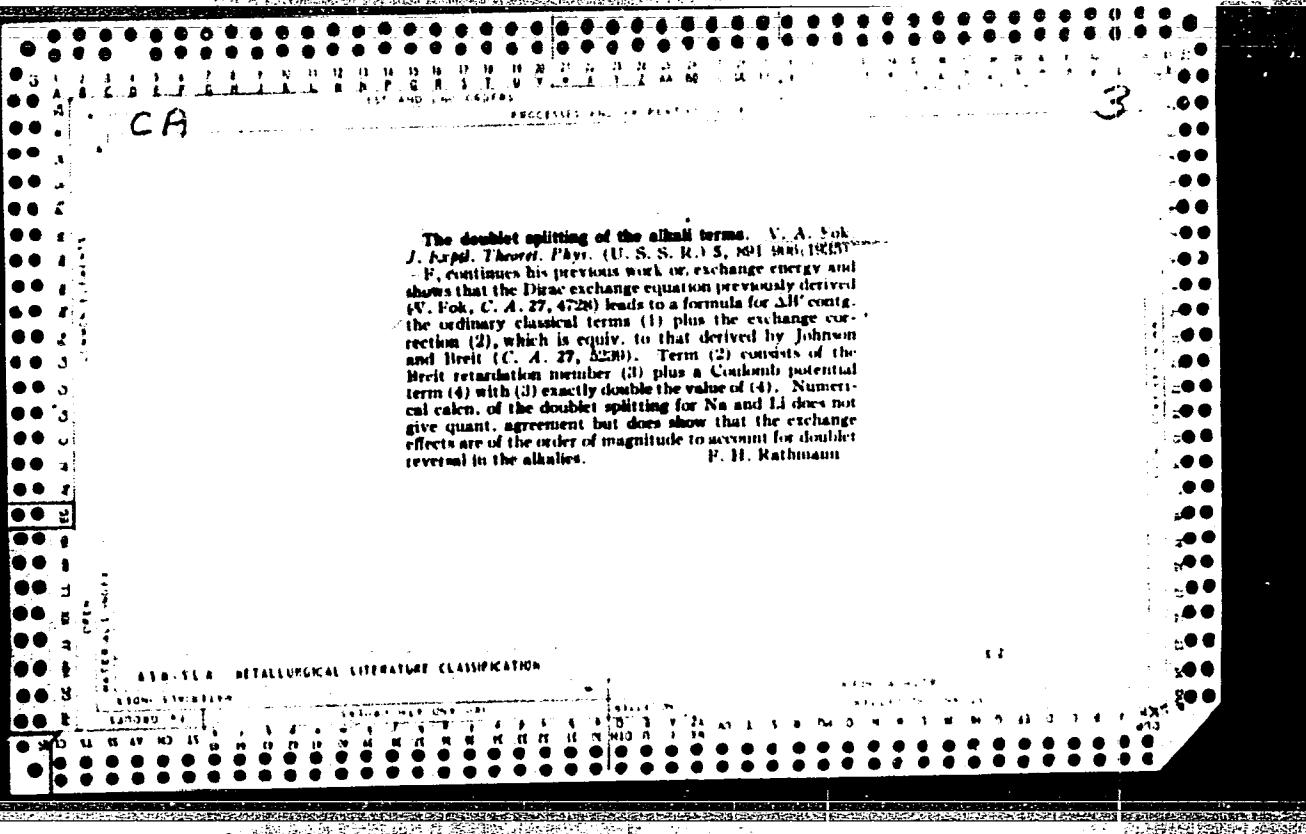
ca

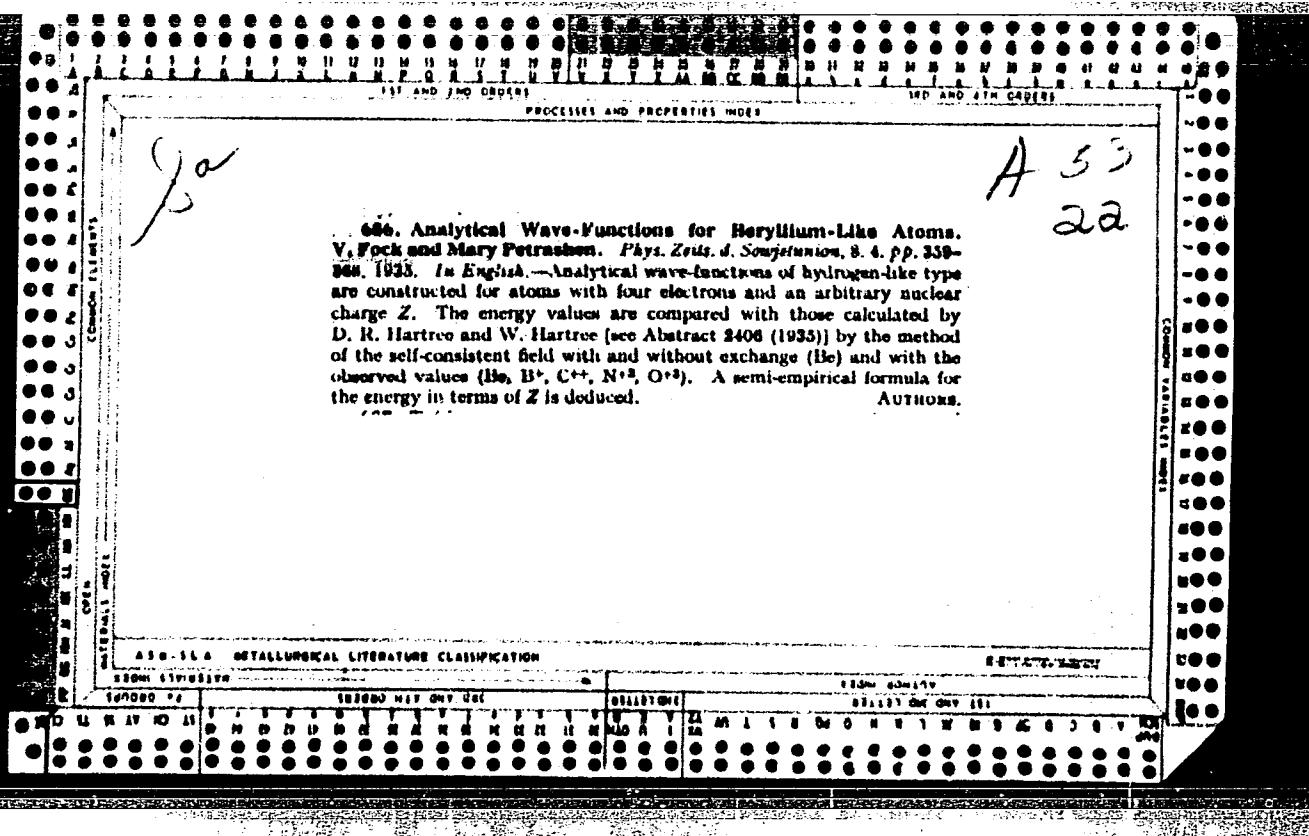
3

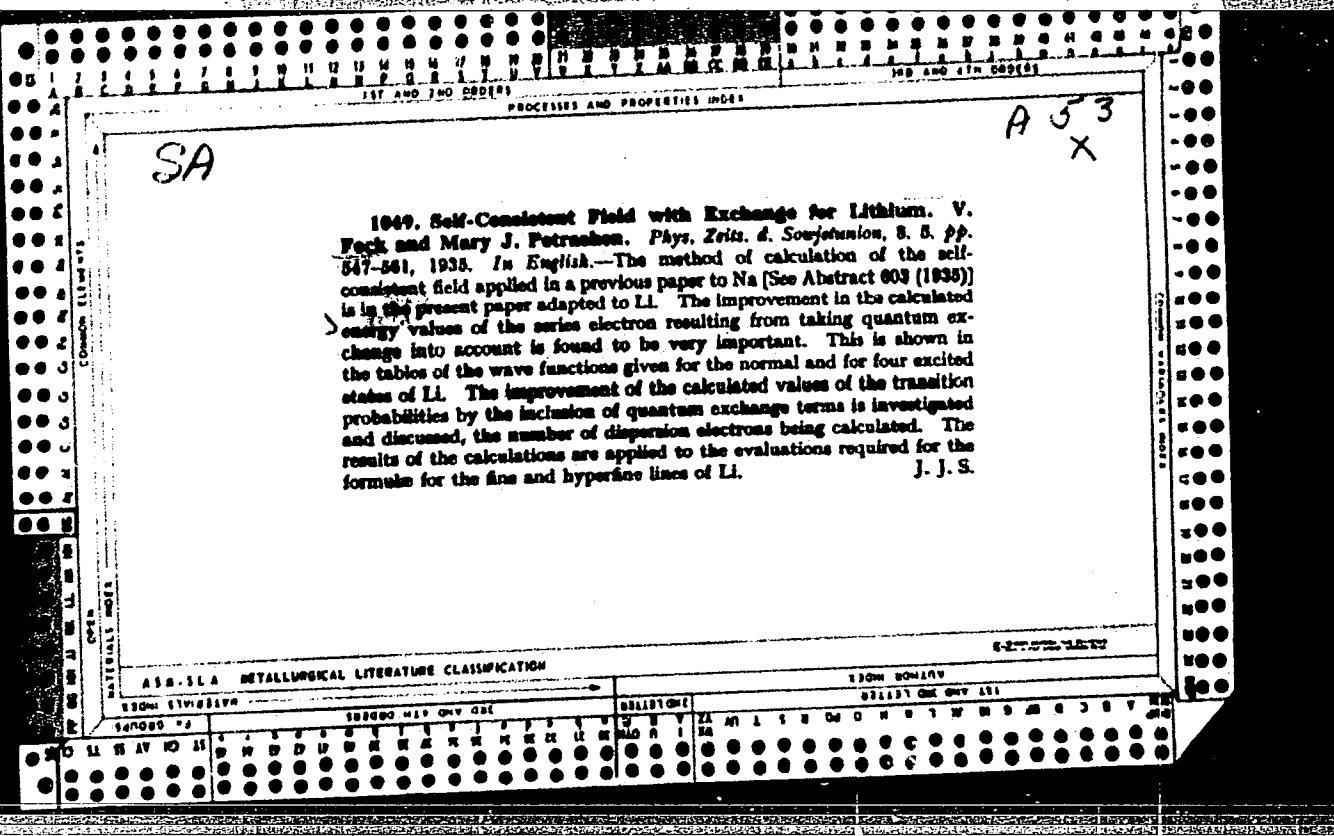
Hydrogen atoms and non-Euclidean geometry
Pek., *Bull. acad. sci. U. R. S. S.* 1935, 100-70 in German
(1937).--Math. The Schrödinger equation for the H atom in a momentum space is identical with that for the spherical harmonic function of the 4-dimensional potential theory. The transformation group for this equation is likewise equiv. to the rotation group of the latter. Several applications are brought out. Gregg M. Evans

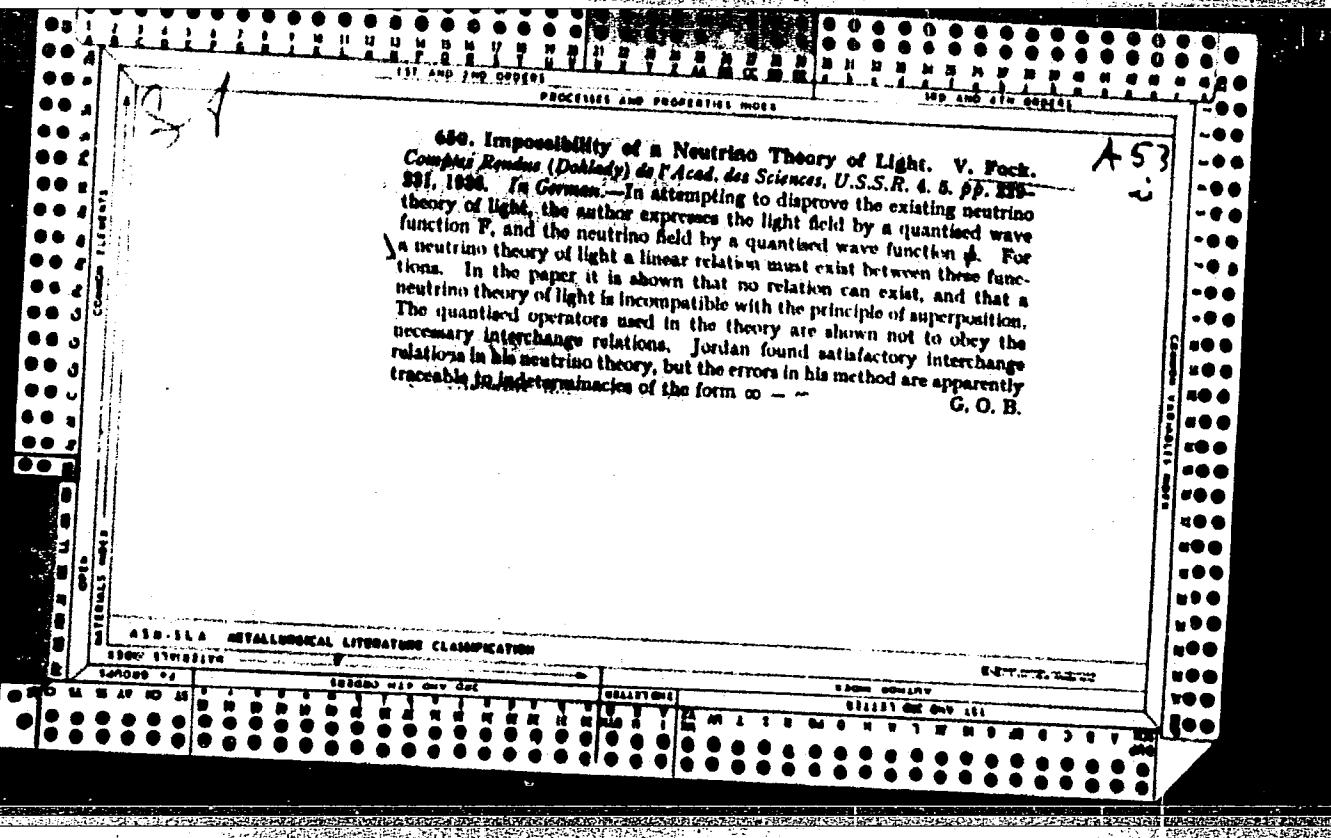
650-3A METALLURGICAL LITERATURE CLASSIFICATION

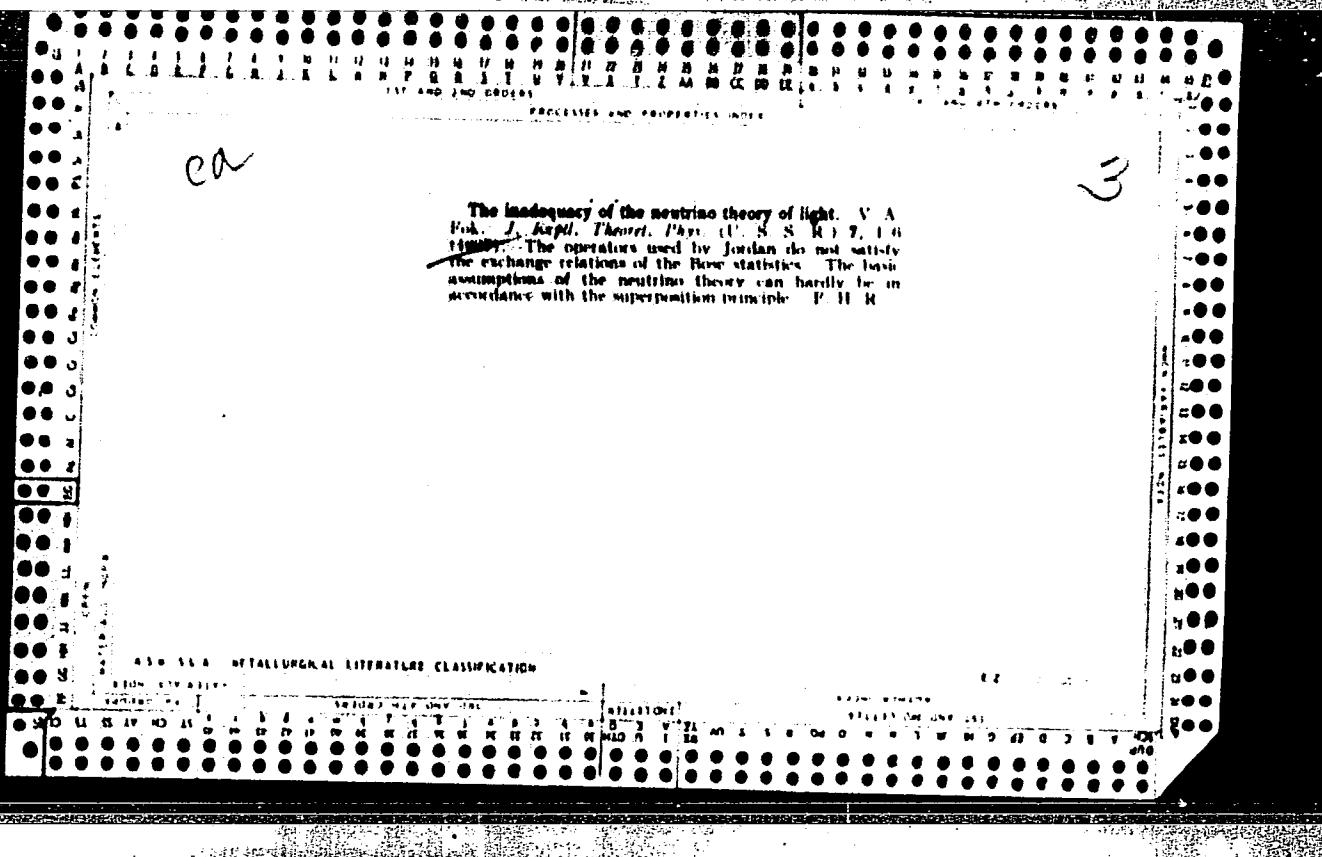


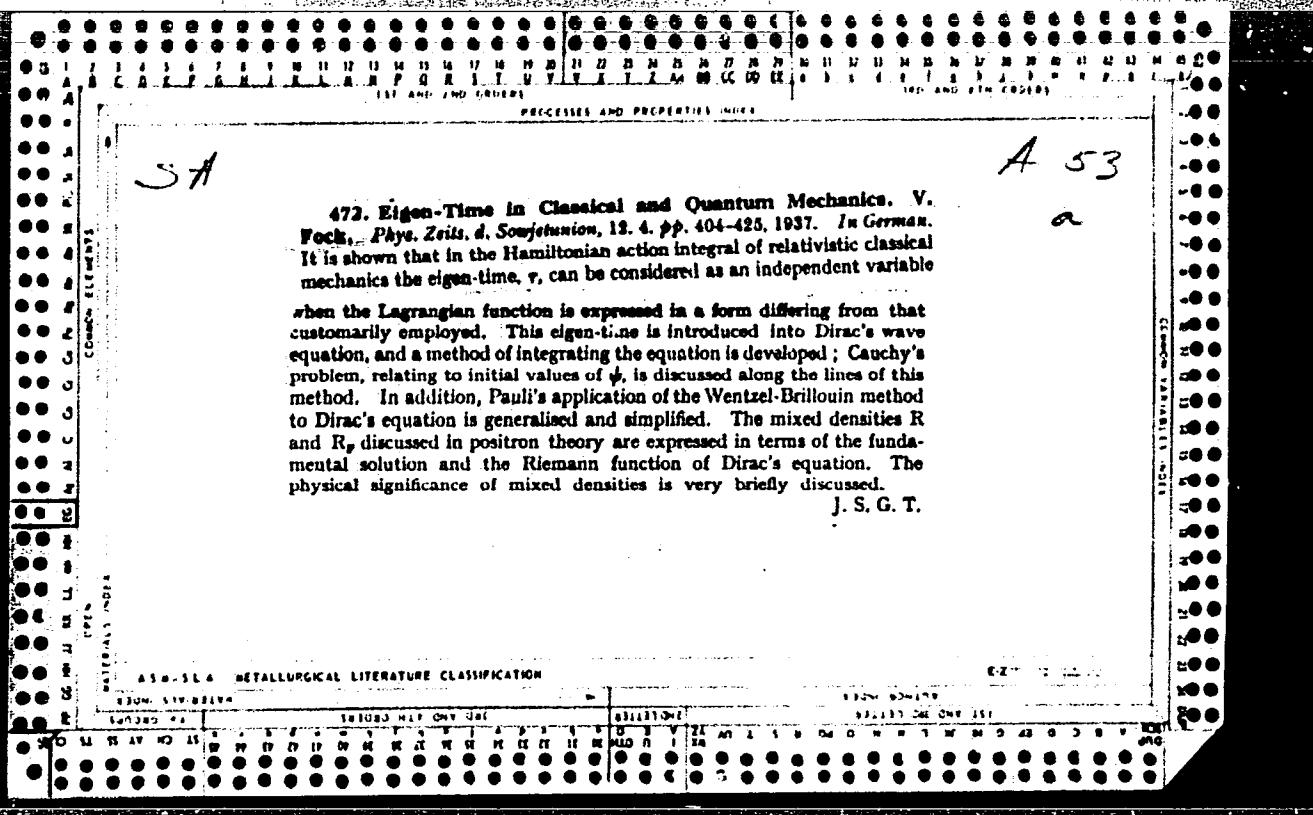










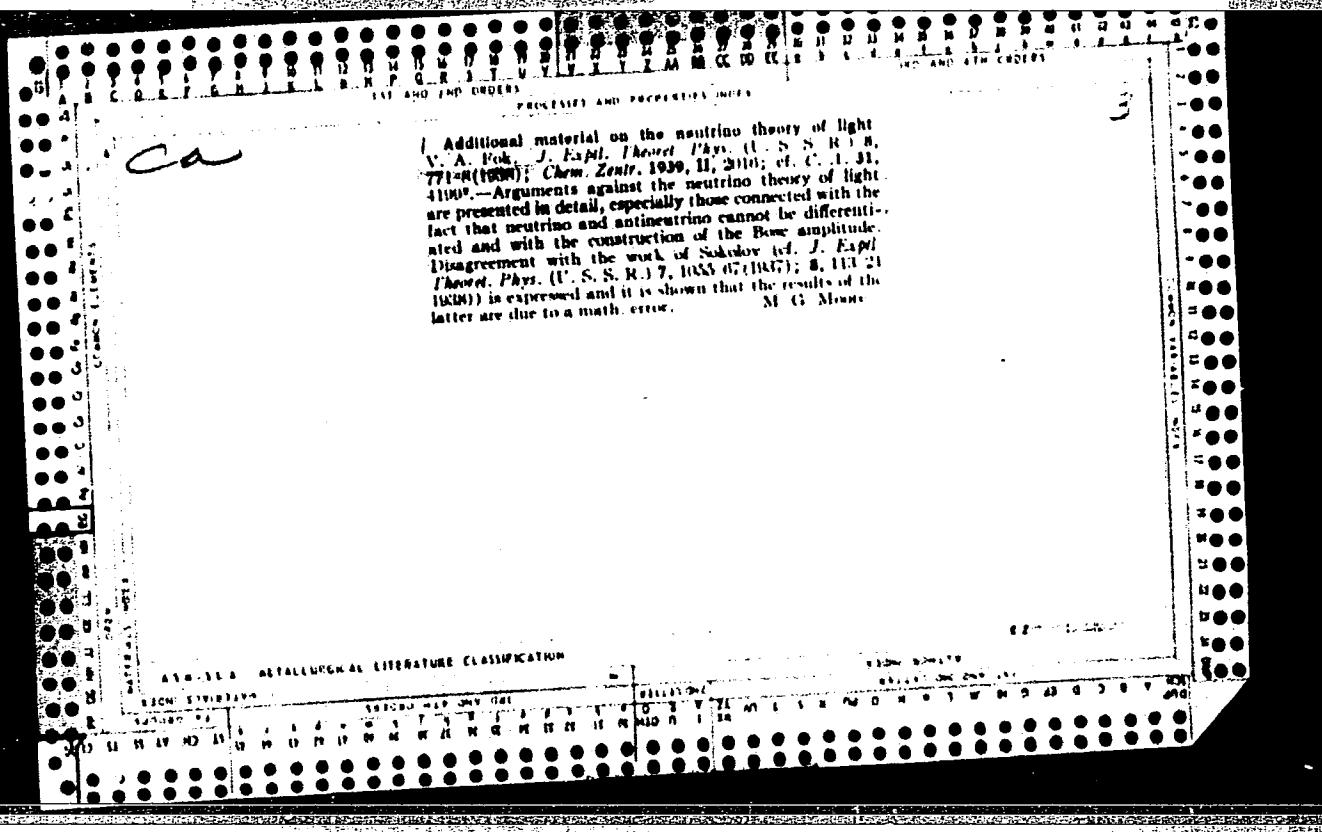


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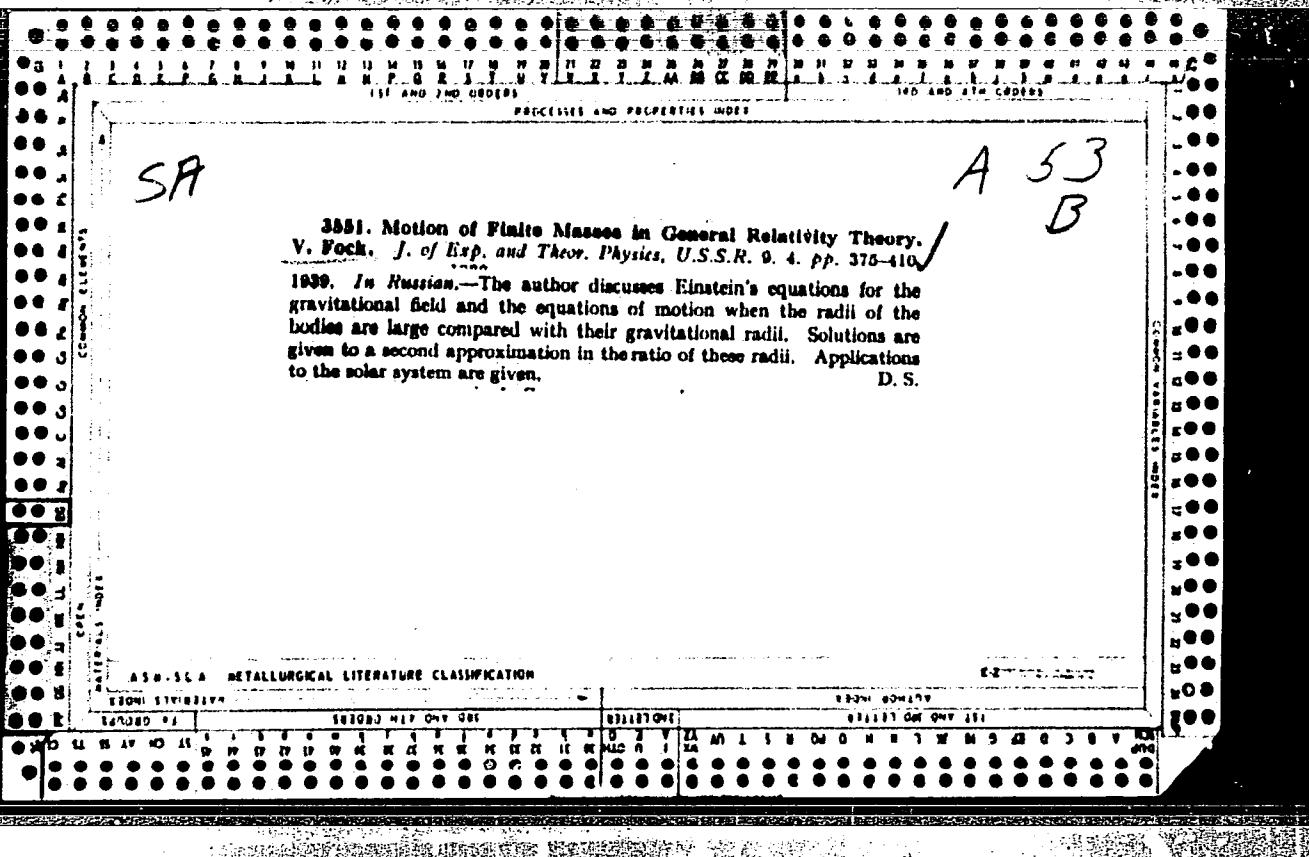
6887. Neutrino Theory of Light. V. Fock. *Comptes Rendus (Doklady) de l'Acad. des Sciences, U.S.S.R.* 18, 8, pp. 713-744, 1957. In German. (Russian translation in *Translations of the neutrino theory of light (see Abstract issue, 1957)).*) We author admits the replica of Nath and Stueckelberg which indicates that by the introduction of antineutrino operators satisfying Jordan's interchange relations can be constructed. He shows, however, that fundamental difficulties remain which have a physical origin in the fact that the degree of freedom to which corresponds the transformation of a particle from a neutrino into an antineutrino cannot be found in nature. W. S. S.

ASA-SLA METALLURGICAL LITERATURE CLASSIFICATION



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"On the Movement of Finite Masses after Einstein's Theory of Gravitation," Acta Phys., 1, No. 2, 1939.

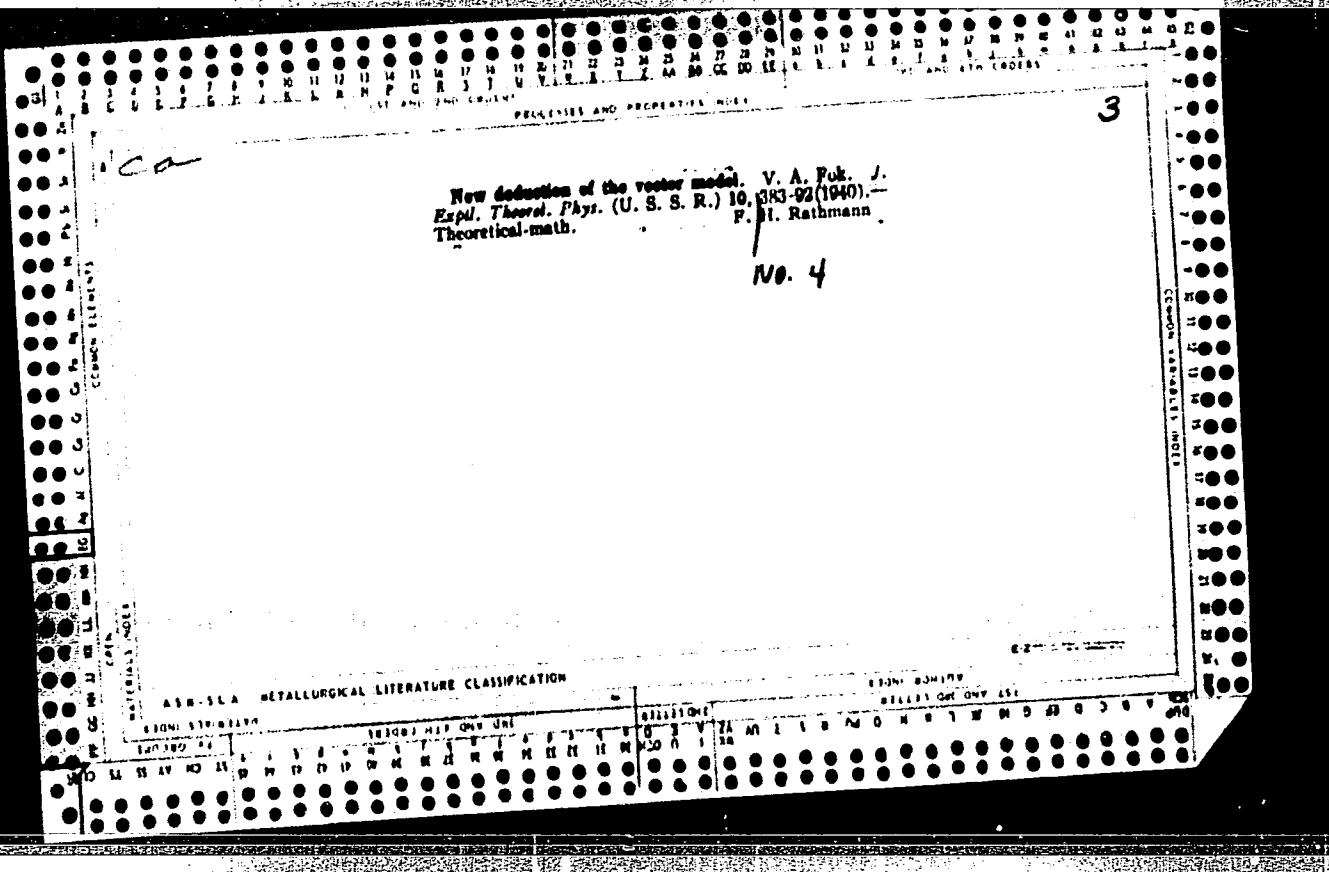


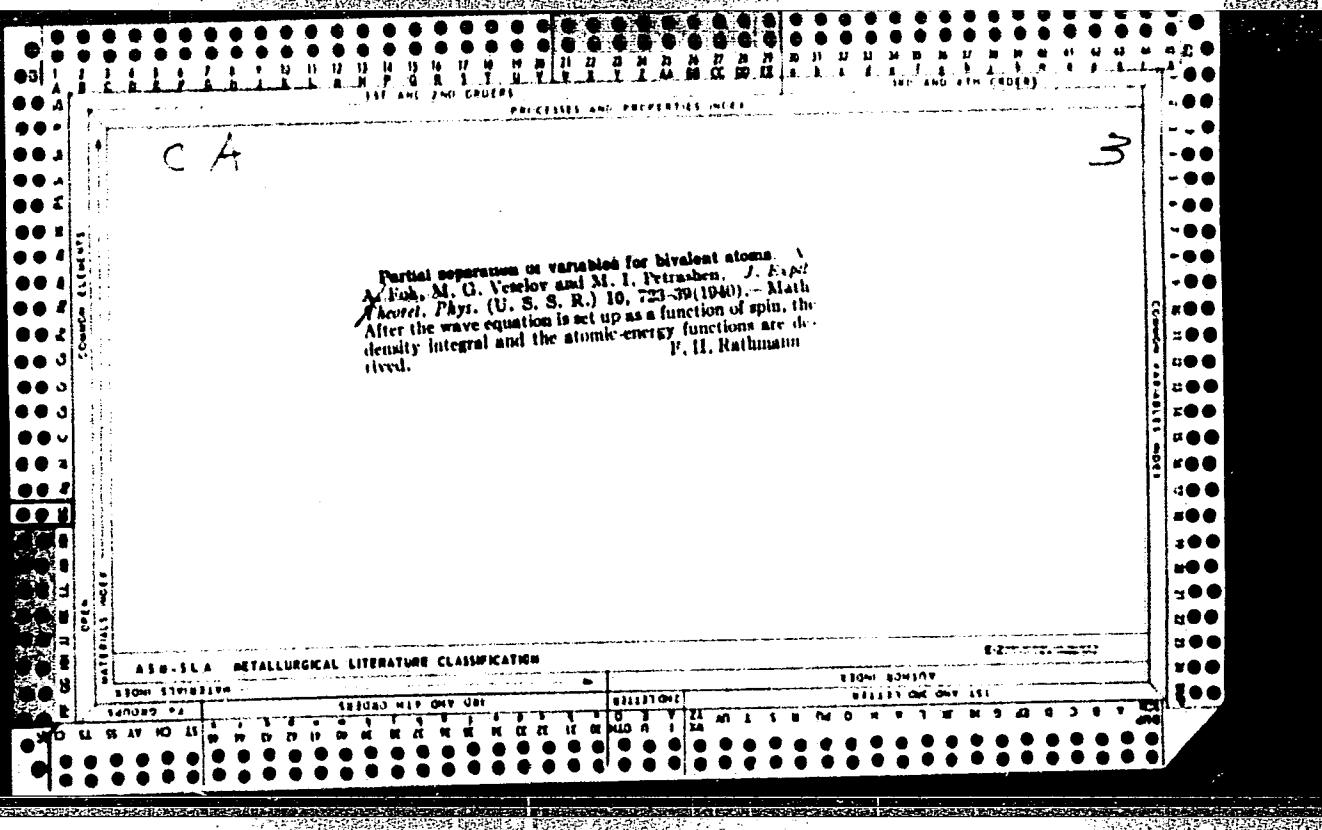
RC

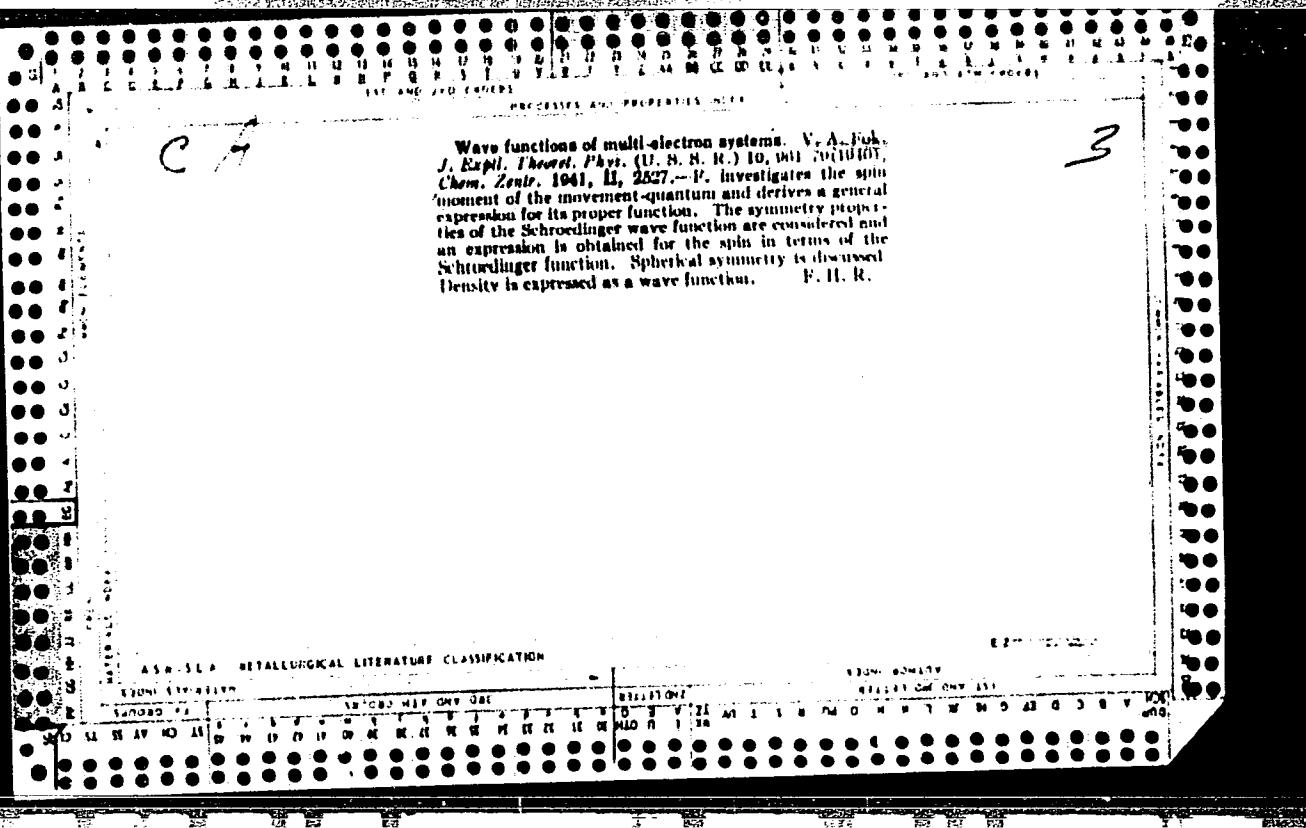
A-1

Diffraktion von wellen aus einer gewundenen Röhre. V. A. Fock und
V. A. Karpov (J. Physique URSS, 1939, B, 125-140).
Diffraktionsintensität berechnet für eine zylindrische Röhre und
angewendet auf die Diffraktion von fast-elektronen durch biegende Röhre.
Die Resultate stimmen mit experimentellen Resultaten überein, erhalten mit
sehr dünne, extrem biegende Metallfolien.

ALSO ZHUR. PHYS. 125, No. 2, VOL. III, 1940







"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000413410012-5

FOK, V. A.

"Concerning the Integrals of the Center of Gravity in the Relativist Problem of
Two Finite Masses," Dok. AN, 32, No. 1, 1941.

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CIA-RDP86-00513R000413410012-5"

FOK, V.

"On Certain Integral Equations of Physical Mathematics," Dok. AN, 36, No. 4-5, 1942.

FOK, V. A.

"Electric Field in a Hollow in a Conducting Plane," Zhur. Eksper. i Teoret. Fiz., 13, No. 7-8, 1943.

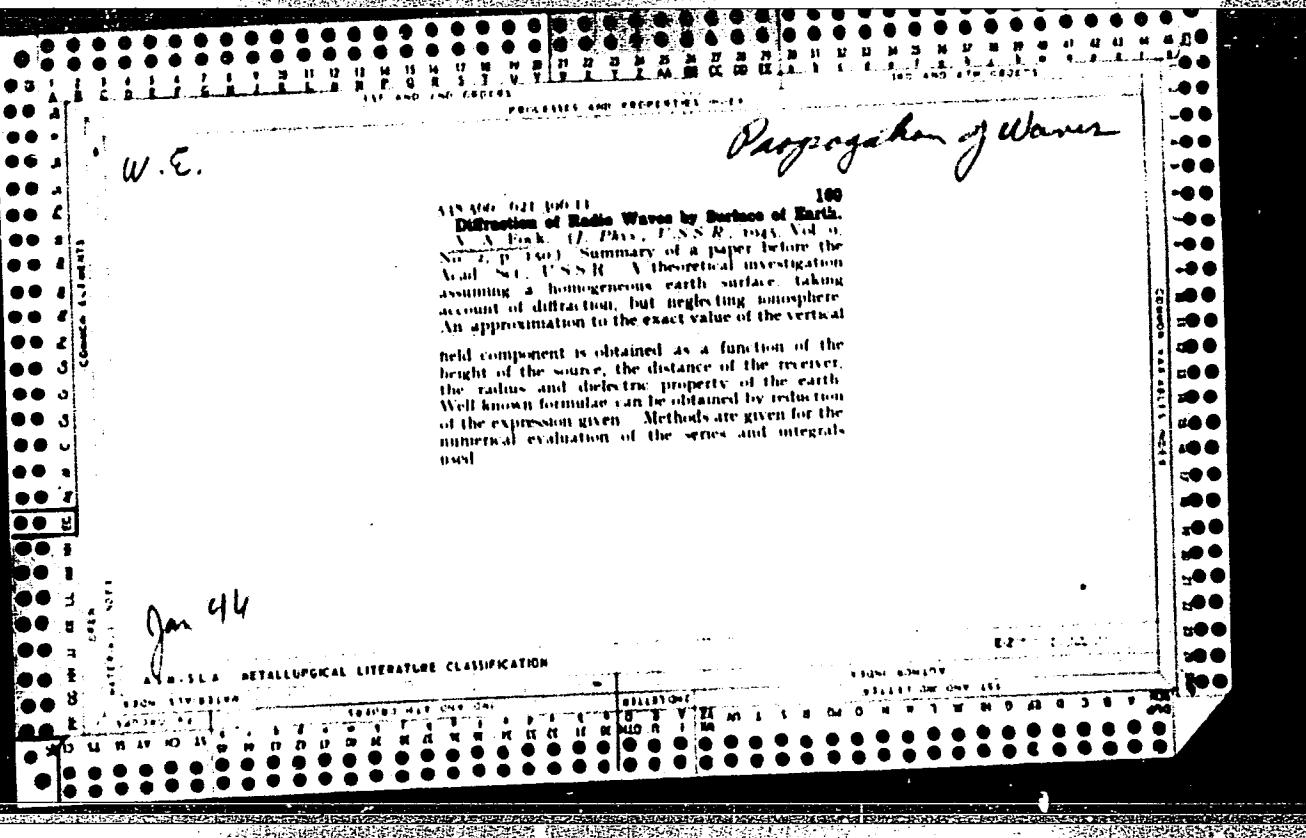
"On the Representation of an Arbitrary Function by an Integral Involving Legendre's Functions with a Complex Index," Dok. AN, 39, No. 7, 1943.

"Electrical Field Near a Depression in a Conducting Plane," Dok. AN, 40, No. 9, 1943

FOK, V. A.

"Diffraction of Radio Waves Around the Earth's Surface," a report submitted at the General Assemblies of OFNN in 1944.

IAM-Ser Fiz, Vol 9, No 3, 1945



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CIA-RDP86-00513R000413410012-5

Revised
Schenk Planes A-10

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000413410012-5"

FOCK, V. A.

538.566 : 551.4
The Diffraction of Radio Waves around the
Surface of the Earth. . . V. A. Fock. Published as a
monograph by the Academy of Sciences of the
U.S.S.R., Moscow, 1946, 80 pp. In Russian.

846

A theoretical treatment of the propagation of
radio waves round the curved surface of the earth
for distances short enough for ionospheric influences
to be negligible. The finite conductivity of the
earth is taken into account. Formulas appropriate
to the region where the transmitter and the observa-
tion point are intervisible, and also to the diffraction
zone, are derived, and particular attention is paid
to the evaluation of the field in the region of the
'cut-off' point.

The work is in agreement with the earlier con-
siderations of Weyl and van der Pol, but represents
an extension of their analyses, particularly in so far
as it permits the determination of the field produced
by ultra short waves just inside the diffraction zone.

Propagation of Waves

On the Preparation and Dispersion of Radio Waves. V. A. Fock. (Fizicheskaya Nauka, SSSR, No. 3, 1960). In Russian. A general bibliographic survey introducing methods developed by the author.

FOK VLADIMIR ALEKSANDROVICH

FOK, VLADIMIR ALEKSANDROVICH

Difraksiia radiovoln vokrug zemnoi poverkhnosti. Moskva, 1946. 79 p.,
tables.

At head of title: Akademiia Nauk SSSR.

Title tr.: Diffraction of radio waves around the earth's surface.

TK5751.F6

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library
of Congress, 1955.

V A. Leontovich, M., and Fock, V. Solution of the problem of propagation of electromagnetic waves along the earth's surface by the method of parabolic equation. 3

In the present paper the problem of propagation of electromagnetic waves over a plane earth is solved by the method of parabolic equation. The solution is obtained in the form of a series of terms which are proportional to the powers of the wave number. The first term of the series is the exact solution of the (approximate) parabolic partial differential equation, while the remaining terms are corrections to it. The expression for the field is given in the form of a series of terms which are proportional to the powers of the wave number.

recently obtained (in a different manner) by Fock [C. P.

Source: Mathematical Reviews, Vol. 8, No. 3

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"APPROVED FOR RELEASE: 08/23/2000

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Initial Reviews.

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000413410012-5"

FOR, V.
FOK, V.

PA 54T25

USSR/Academy of Sciences
Biography

Nov/Dec 1946

"Aleksey Nikolayevich Krylov (1863-1945), On the First
Anniversary of His Death," V. Fok, 6 pp

"Journal of Physics USSR" Vol I, No 6

Brief biographical sketch of Aleksey Nikolayevich
Krylov, scientist, naval engineer, physicist, and
mathematician.

54T25

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000413410012-5

Landau L. Landau M. M.
F. A. Fasov

Acad. Sci. URSS Izvestia Akad. Nauk SSSR 18, 248 266
(1944). Acad. Sci. URSS J. Phys. 9, 25-40 130 148 1945
Uchenye Zapiski Moskov Gos. Univ. Fizika 77, 1, 2, 3, 4, 5
1943-1944 p. 3, 6, 122, 7, 104, 183.

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F. N. A.

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CIA-RDP86-00513R000413410012-5"

FOK, V. A.

"Physics - Determination of Structure of Complex Atoms," Gorodskoye Khozyaystvo
moskvy No. 8, Moscow, Aug., 1947

FOCK, V.

PA 13T78

USSR/Uncertainty Principle

Feb 1947

"The Uncertainty Relation Between Time and Energy,"
V. Fock, Krylov, 8 pp

"Jour Physics USSR". Vol XI, No 2

Demonstration that the uncertainty relation between
time and energy derived by Mandelstam and Tamm has
a physical meaning and region of application different
from Bohr's relation.

Physics Inst., Leningrad U.

13T78

Also Zhur. Eksper. i Teoret. Fiz. 17, No. 2, 1947

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000413410012-5

FOK, V.A., akad.

New methods in the theory of diffraction. Vest. IgU 2 no.4:5-11
Ap '47. (MIRA 12:9)
(Diffraction)

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000413410012-5"

FUR, V.I.

SENA, L.A.; VAVILOV, S.I., akademik, redaktor; IOPPE, A.P. akademik, re-daktor; LUKIRSKIY, P.I., akademik, redaktor; YOK, V.A., aka-demik, redaktor; FRENKEL', Ya.I., redaktor; SHUL'MAN, A.P., re-daktor; VOLCHOV, K.M., tekhnicheskij redaktor.

[Collisions of electrons and ions with gas atoms] Stolknoveniya elektronov i ionov s atomami gaza. Leningrad, Gos. isd-vo tekhnika-teoret. lit-ry 1948. 215 p. [Microfilm] (MLRA 10:6)

1. Chlen-korrespondent AN SSSR (for Frenkel')
(Collisions (Nuclear physics))

42036: FUK, V. A. - O dvizhenii ionov v plazme. Zhurnal eksperim. i teoret. Fiziki, 1948, vip. 11. S. 1049-55.

SO: Letopis' Zhurnal'nykh Statey, Vol. 47, 1948.

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000413410012-5

Reel V. A. The propagation of the direct wave around the
earth taking account of refraction and reflection.

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000413410012-5"

FOK, V. A.

PA 9/49T93

USSR/Physics

Quantum Mechanics

Wave Mechanics

Aug 48

"Interpretation of the Wave Function, Which Can Be
Used to Compute Past Occurrences," V. A. Fok, 4 pp

"Zhur. Ekspер. i Teoret. Fiz." Vol XVIII, No 8

In quantum mechanics, wave functions can be used
for calculation of probabilities relative to future
measurements, on basis of results of previous
measurements. For known conditions they can serve
for calculating probabilities, relative to past on
the date of later measurements. Conditions formu-
lated and formula derived for probabilities relative

9/49T93

USSR/Physics (Contd)

Aug 48

to past. A priori probabilities are contained in
this formula.

9/49T93

FOK, V. A.

PA 51/49T63

USSR/Physics

Nov 48

Ions
Solar Phenomena

"Movement of Ions in Plasma," V. A. Fok, Phys Inst,
Leningrad U, 6 pp

"Zhur Eksper i Teoret Fiz" Vol XVIII, No 11

Introduces approximation formulas for velocity distribution of ions in plasma and for the time ions stay in a state with a given speed. Results of calculations may be compared with results of experimental research of Frish and Kagan, who studied intensity distribution of light radiated by the sun at a given speed. Submitted 21 Jun 48.

51/49T63

FOK, V. A.

12035: FOK, V. A. - Zakony otrazheniya frenelya i zakony diffraktsii. Uspekhi fiz. Nauk T. XXXVI. Vyp. 3, 1948, S. 308-27.

SO: Letopis' Zhurnal'nykh Statey, Vol. 47, 1948.

"New Methods in Diffraction Theory," Philosophical Magazine, Vol. 39, pp 149-155,
(1948).

B-84253, 4 Apr 55

FOK, V. A. WORK

1A7C195

Physics
Mathematics, Applied

Jun 1948

"Explanation of Wave Functions Inverted to the Past,"
Acad V. A. Fok, Phys Inst, Leningrad State U, 3 pp

"Dok Ak Nauk SSSR" Vol LX, No 7

Fok's object is to show that such a function has
specific physical meaning. Submitted Apr 1948.

76XV

FOK, V. A.

"Radioactive Elements" (Radioaktivnye Elementy), S. Ye. Bresler, edited by Academicians S. I. Vavilov, A. S. Ioffe, T. I. Lukirskiy, and V. A. Fok, and Corresponding Member Ya. I. Frenkel', Gostekhizdat, Moscow/Leningrad, 1949, 308 pages and one enclosure, 11 rubles 40 kopeks.

SO: Uspekhi Khimii, Vol 18, #6, 1949; Vol 19, #1, 1950 (W-10083)

FOK, V. A.

"Propagation of Supersonic Waves in Liquids" (Rasprostraneniye Ul'trazvukovykh Voln v Zhidkostyakh), I. G. Mikhaylov, edited by Academicians S. I. Vavilov, A. F. Ioffe, P. I. Lukirskiy, and V. A. Fok, and Corresponding Member of the Academy of Sciences USSR Ya. I. Frenkel', Gostekhizdat, Moscow/Leningrad, 1949, 152 pages, 5 rubles 60 kopeks.

The propagation and absorption of supersonic waves are investigated for pure liquids, mixtures, solutions, and less completely for amorphous solid substances. The investigations reported are chiefly those of Soviet scientists in the last 20 years.

SO: Uspekhi Khimii, Vol 18, #6, 1949; Vol 19, #1, 1950 (W-10083)

FCK, V. A., LUKIRSKIY, I. I., IOFFE, A. F., VAVILOV, S. I., (Editor), LAYKHTMAN, D. L.
CHUDNOVSKIY, A. F., FRENKEL', Ya. I.

"Physics of the Atmosphere Near the Ground", Moscow/Leningrad: State
Technical Press, 245 pp 1949.

FOK, V. A.

USSR/Physics - Dipoles
Radio Waves

Oct 49

"The Field From a Vertical and a Horizontal Dipole Lifted Slightly Above the Earth's Surface," V. A. Fok, 14 pp.

"Zhur Eksper. i Teoret. Fiz." Vol. XIX, No. 10

In Fok's book, "Diffraction of Radio Waves Around the Earth's Surface," a method was developed for summation of series representing the field from a dipole situated on the earth's surface, which was taken to be spherical. Method is applied here for the case of vertical and horizontal dipoles lifted slightly above the earth's surface. Submitted 4 Jun 49.

150T66

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000413410012-5

FOOK V.A.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000413410012-5"

"APPROVED FOR RELEASE: 08/23/2000

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"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000413410012-5

... il rapporto tra un elemento della superficie d'onda riflessa e il corrispondente elemento della superficie riflettente risulta diverso da uno.

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000413410012-5"

C.A.

Use of two-electron functions in the theory of the chemical bond. V. A. Fok. *Doklady Akad. Nauk S.S.R.* 73, 735-8(1957).—For a system of n electrons with a resulting spin s , i.e. no. of satd. bonds = $(n/2) - s = b$, the coordinate wave function ψ is shown to fulfill the 3 conditions of antisymmetry with respect to the 1st b arguments, of antisymmetry with respect to the last $n - b$ arguments, and of cyclic symmetry, if it is expressed in terms of b two-electron functions corresponding to satd. bonds, and of $n - 2b$ $= 2s$ one-electron functions corresponding to unsatd. bonds. If the two-electron function is factorized into 2 identical functions, ψ becomes the product of 2 determinants of order b and $n - b$. The two-electron function then represents an orbit occupied by 2 electrons. Irrespective of their applicability to practical calculi, the two-electron functions have the advantage of more direct bearing on problems of the chem. bond. N. Thom

"APPROVED FOR RELEASE: 08/23/2000

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1. FOK, V. A.
2. USSR (600)
4. Matter
7. Mass and energy. Usp fiz nauk No 2 1952
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

FOK, V. A.

"So-Called Ensembles in Quantum Mechanics," Vest. Leningrad U., Ser. Mat, Fiz, Khim, Vol 7, No 6, pp 67-73, Jun 52.

Criticizes work by D. I. Blokhintsev, "Principles of Quantum Mechanics," (Osnovy Kvantovoy Mekhaniki), 1951, 195 pp., particularly Blokhintsev's idea of quantum ensembles, allegedly securing materialistic approach to the subject. Suggests viewpoint of more real quantum states.

251T103

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000413410012-5

FOK, V.A., akademik.

The modern theory of space and time. Priroda 42 no.12:13-26 D '53.
(MLRA 6:11)
(Relativity (Physics))

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000413410012-5"

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000413410012-5

FUOKA, V. A.

"Wide Angle Interference from Quadruple Source of Light," Translation from Doklady Akademii Nauk, SSSR, Vol. 89, pp. 439, (1953).

B-84253, 4 Apr 55

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000413410012-5"

KRAVTSOV, V.A.; FOK, V.A., akademik.

Regularities in the change of binding energies of nucleons in nuclei.
Dokl.AN SSSR 90 no.5:749-751 Je '53. (MLRA 6:5)

1. Leningradskiy politekhnicheskiy institut im. M.I. Kalinina (for Kravtsov).
2. Akademiya nauk SSSR (for Fok). (Nuclear physics)

TSANDER, A.Y.; FOK, V.A., akademik.

Problem of multiple particles in quantum mechanics. Dokl. AN SSSR 90 no.
5:761-764 Je '53. (MLRA 6:5)

1. Akademiya nauk SSSR (for Fok). (Quantum theory) (Nuclear physics)

LIPMANOV, E.M.; FOK, V.A., akademik.

Radiational correction in the disintegration of Λ -mesons. Dokl. AN SSSR
90 no.6:999-1001 Je '53. (MLRA 6:6)

1. Leningradskiy gosudarstvennyy pedagogicheskiy institut im. A.I.Gertsena
(for Lipmanov). 2. Akademiya nauk SSSR (for Fok).
(Radiation) (Mesotrons)

FOK, V.A.; FIRSOV, O.B.

Interaction of atoms at distances less than $5 \cdot 10^{-9}$ cm. Dokl. AN SSSR 91
no. 3:515-518 J1 '53. (MLRA 6:7)

1. Leningradskiy fiziko-tehnicheskiy institut Akademii nauk SSSR (for
Firsov). 2. Akademiya nauk SSSR (for Fok).
(Collisions (Nuclear physics))

FADDEYEVA, V.N.; TERENT'IEV, N.M.; FOK, V.A., akademik, redaktor;
GRISHMANOVSKAYA, K.I., redaktor.

[Tables of values of the function $w(z) = e^{-z^2} \left(1 + \frac{2i}{\sqrt{\pi}} \int_0^z e^{t^2} dt\right)$,
complex argument] Tablitsy znachenii funktsii $w(z) = e^{-z^2} \left(1 + \frac{2i}{\sqrt{\pi}} \int_0^z e^{t^2} dt\right)$
ot kompleksnogo argumenta. Pod red. V.A. Foka. Moskva, Gos. izd-vo
tekhniko-teoret. lit-ry, 1954. 268 p. (Matematicheskie tablitsy,
no. 3) (MLRA 7:8)

(Functions--Tables, etc.)

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CIA-RDP86-00513R000413410012-5

6567 which, among other things, criticized previous
and current Soviet foreign policy.

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CIA-RDP86-00513R000413410012-5"

USSR/ Nuclear Physics - Calculations

Card 1/1 Pub. 43 - 1/97

Authors : Fok, V. A.

Title : About the Schroedinger equation for the helium atom

Periodical : Izv. AN SSSR, Ser. fiz. 18/2, 161-172, Mar-Apr 1954

Abstract : An analysis is presented of the Schroedinger equation originally intended for a helium atom in a state with zero moment of motion. This equation was first introduced by E. Hylleraas (1929) in his work devoted to the calculation of the helium atom in its original state. Energy levels obtained as result of solving the Hylleraas (Schroedinger) equation must first be corrected for final mass values of the nucleus and for relativistic effects. Examples of calculations conducted by means of the Hylleraas equation are included. Four references: 2 USA; 1 German and 1 USSR (1928-1953). Diagram.

Institution : The A. A. Zhdanov State University, Physics Institute, Leningrad

Submitted : February 24, 1954

F. I. Iukirskii, V. A.

IOFFE, A.F.; LIMBEDEV, A.A.; FOK, V.A.; STARIK, I.Ye.; KONSTANTINOV, B.P.;
DZHELEPOV, B.S.; PERFILOV, N.A.; DOBRETSOV, L.N.; STARODUBTSEV, A.V.;
NEMILOV, Yu.A.; ZHDANOV, A.P.; MURIN, A.N.; AGLINTSEV, K.K.; TSAREVA, T.V.; SHUL'MAN, A.R.; YEREMEYEV, M.A.

P.I. Iukirskii; obituary. Vest. AN SSSR 24 no.12:62 D '54. (MIRA 8:1)
(Iukirskii, Petr Ivanovich, 1894-1954)

10A, b-3
200
✓★ Fok, V. A. Diffraktion of radiowaves around the earth's surface. Translated by Morris D. Friedman, 2 Pine St., West Concord, Mass., 1955. 80 pp. \$7.50.

This is the translation of a monograph [Difrakciya radiovoln vokrug zemnoj poverhnosti, Izdat. Akad. Nauk SSSR, Moscow, 1946] giving a detailed presentation of the results summarized in an earlier paper by the author [C.R. (Dokl.) Acad. Sci. URSS (N.S.) 46 (1945), 310-313; MR 7, 100]. The most novel part of the monograph is the approximation in the penumbral region. This is given either as a contour integral or as an infinite series involving the function

$$w(t) = \left(\frac{-\pi t}{3}\right)^{1/4} e^{2\pi i/3} H_1^{(1)}[\tfrac{2}{3}(-t)^{1/4}] = u(t) + iv(t)$$

[a multiple of $Ai(t e^{2\pi i/3})$. 4-5S tables of $u(t)$, $u'(t)$, $v(t)$, $v'(t)$ with first differences are given for $t = -9(0.02)9$.
A. Erdelyi (Pasadena, Calif.).

1. F.
G. Lee
J. Hu
J. J. G.
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FOK, V.A.

NESMEYANOV, A.N., akademik; TOPCHIYEV, A.V., akademik; IOFFE, A.P., akademik;
KAPITSA, P.L., akademik; LAVRENT'YEV, M.A., akademik; SKOBEL'TSYN,D.V.,
akademik; FOK, V.A., akademik.

Albert Einstein. Elektrichestvo no.6:85-86 Je '55. (MLRA 8:6)
(Einstein, Albert, 1879-1955)

NESMEYANOV, A. N., akademik; TOPCHIYEV, A. V., akademik; IOFFE, A. F., akademik;
KAPITSA, P. L., akademik; LAVRENT'YEV, M. A., akademik; SKOBEL'TSYN, D. V.,
akademik; FOK, V. A., akademik

Albert Einstein; obituary. Vest. AN SSSR 25 No. 5:67-68 My '55.
(Einstein, Albert, 1879-1955) (MLRA 8:7)

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corner-stone of the theory. The covariance of the equations of the theory under general coordinate transformations is a property of the physical universe. He regards this invariance as merely a property of the mathematical structure of the theory, although it may be sometimes convenient to

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[Redacted]

Special class of coordinate systems. All general reference.

[Signature]

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FOK, V. A.

"Complex Integrals as Applied to Certain Diffraction Problems," paper presented at Radio Scientific Union International Colloquium on Radioelectric Wave Propagation, Paris, 17-22 Sep 56

FOK, V.A.

Call Nr: AF 1108825

Transactions of the Third All-union Mathematical Congress (Cont.) Moscow,
Jun-Jul '56, Trudy '56, v. 1, Sect. Rpts., Izdatel'stvo AN SSSR, Moscow, 1956, 237 pp.
Smirnov, M. M. (Leningrad). On a Boundary Problem for Mixed Type
Equations. 69-70

Stebakov, S. A. (Moscow). Simplex-Linear
Differential Equations. 70

Cherskiy, Yu. I. (Rostov-na-Donu). Convolution
Type Integral Equations. 70-71

Fok, V. A. and Rapoport, I. M. are mentioned.

Fage, M. K. (Chernovitsy). Solution of one Cauchy Problem
by Increasing the Number of Independent Variables. 71-72

Mention is made of Levitan, B. M., Marchenko, V. A. and Povzner, A.Ya.

Khvedelidze, B. V. (Tbilisi). On Singular Integral Equations
With Cauchy Type Kernels in the Classes of Functions, Which
are Summed up With Weight. 72

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derived applies to an atmospheric device
the earliest date

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APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000413410012-5"

Fock, V. A.

Criticism on Bohr's views of quantum mechanics. P. 113
CESKOSLOVENSKY CASOPIS PRO FYSIKU. (Ceskoslovenska akademie ved,
Ustav technicke fysiky) Praha
Vol. 6, no. 2, Mar. 1956

Source: EEAL - LC Vol. 5. No. 10 Oct. 1956

Fok, V. A.

Czechoslovakia/Theoretical Physics - Theory of Relativity and Unified Field Theory B-2

Abst Journal : Referat Zhur - Fizika, No 12, 1956, 33710

Author : Fok, V. A.

Institution : None

Title : Concepts of Homogeneity, Covariance, and Relativity in the Theory of Space and Time

Original

Periodical : Ceskosl. Casop. Fys., 1956, 6, No 3, 237-241, Czech

Abstract : See Referat Zhur - Fizika, 1956, 24708.

Card 1/1

FOK, V.A.
USSR/Theoretical Physics - Relativity. Unified Field Theory.

B-2

Abs Jour : Ref Zhur - Fizika, No 4, 1957, 8385

Author : Fok, V.A.

Inst :

Title : Remarks Concerning article by F.I. Frankl' "On the
Correctness of the Statement of the Cauchy Problem and
Properties of Harmonic Coordinates in the General Theory
of Relativity".

Orig Pub : Uspekhi. matem. nauk, 1956, 11, No 3, 197-198.

Abstract : It is stated that the author never objected to the mathematical correctness of the Cauchy problem in the Hadamard sense for the equations of gravitation. Since the energy radiated, for example, by the solar system in the form of gravitational waves is 10^{24} times less than the energy radiated in the form of electromagnetic waves, it makes no sense to state the Cauchy problem for the gravitational field neglecting the electromagnetic radiation. For the

Card 1/2

USSR/Theoretical Physics - Relativity. Unified Field Theory.

B-2

Abs Jour : Ref Zhur - Fizika, No 4, 1957, 8385

same reason the quantities entering into the equation of gravitation cannot be determined from observations with the same accuracy as required by the mathematical statement of the Cauchy problem.

Card 2/2

SUBJECT USSR / PHYSICS
AUTHOR FOK, V.A.

CARD 1 / 2

PA - 1331

TITLE The Equations of Motion of a System of Heavy Masses
in Consideration of their Inner Structure and Rotation.
PERIODICAL Usp. fis. nauk, 59, fasc. 1, 67-69 (1956)
Issued: 7 / 1956 reviewed: 10 / 1956

This is a short summary of a lecture delivered on the meeting held in memory of Einstein by the Department for Physical and Mathematical Science on 1.12.1955. The formulae used on this occasion are omitted here.

Also in the theory of the Galilei space (the so-called special theory of relativity) the problem of the correct selection of the coordinate system exists, but it is mostly not broached in explicit form, for the coordinates are assumed to be Galileian. In Einstein's theory of gravitation equations are from the very outset written down invariantly, and the problem concerning selection of the coordinate system suggests itself automatically. In the theory of gravitation additional conditions for the coordinates must therefore be explicitly formulated. It is possible to formulate conditions which determine the coordinate system univocally (down to one LORENTZ transformation).

According to the author's opinion the basic importance of harmonic systems of coordinates in Einstein's theory is not endangered by the possibility of a generally invariant formulation of the equations. From this point of view, however, the Copernican system must be considered as being privileged. If the basic character of the harmonic coordinate system in Einstein's theory is denied, the

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